



MATERIAL SAFETY DATA SHEET

KEM CANADA MFG.
4 BLAIR DRIVE
BRAMPTON, ONTARIO
L6T 2H5
TEL# (905) 456-9444

EMERGENCY # CANUTEC (613) 996-6666
"USE IN CASE OF CHEMICAL EMERGENCY ONLY"

W.H.M.I.S. CLASSIFICATION: D1A, E

MATERIAL REFERENCE NO: 791000

SECTION I - MATERIAL IDENTIFICATION AND USE

MATERIAL NAME/I.D.: KEMTREET 910	
CHEMICAL NAME : HYDROCHLORIC ACID	CHEMICAL FAMILY : INORGANIC ACIDS
CHEMICAL FORMULA: MIXTURE	MOLECULAR WEIGHT: NOT APPLICABLE
SYNONYMS: NONE	
MATERIAL USE: ECONOMICAL DESCALER	

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROX. % CONCENT.	TLV PPM	C.A.S. NUMBERS	LD 50 ORAL, RAT
HYDROCHLORIC ACID	10.0-30.0	5	7647-01-0	1562 PPM/4Hr (VAPOUR)

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: FUMING LIQUID		
ODOUR AND APPEARANCE: CLEAR LIGHT COLOURED LIQUID; SHARP IRRITATING ODOUR.		
ODOUR THRESHOLD (PPM) 5	SPECIFIC GRAVITY 1.16	VAPOUR PRESSURE (MM HG) NOT AVAILABLE
VAPOUR DENSITY (AIR=1) NOT AVAILABLE	EVAPORATION RATE NOT AVAILABLE	SOLUBILITY IN WATER (20 °C) MISCIBLE
BOILING POINT (°C) 99	FREEZING POINT (°C) NOT AVAILABLE	% VOLATILE (BY WEIGHT) 98
pH (1.0% SOLUTION) 2.5	DENSITY (G/ML) NOT APPLICABLE	COEF.OF WATER/OIL DISTR NOT AVAILABLE



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SECTION IV - FIRE AND EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY: NON-FLAMMABLE		
IF YES, UNDER WHICH CONDITIONS:		
MEANS OF EXTINCTION: USE AGENTS SUITABLE FOR SURROUNDING FIRE.		
SPECIAL PROCEDURES: PROTECT FIREFIGHTERS AGAINST CORROSIVE FUMES AND LIQUID IF RELEASED.		
FLASH POINT (C) AND METHOD: NONE		
HAZARDOUS COMBUSTION PRODUCTS: REACTS WITH SOME METALS TO PRODUCE HYDROGEN GAS WHICH MAY FORM EXPLOSIVE MIXTURES WITH AIR. WHEN HEATED HYDROGEN CHLORIDE IS RELEASED WHICH IS CORROSIVE AND IRRITATING.		
UPPER EXPLOSION LIMIT	LOWER EXPLOSION LIMIT	AUTOIGNITION TEMP(C)
NOT APPLICABLE	NOT APPLICABLE	NOT AVAILABLE
EXPLOSION DATA SENSITIVITY	RATE OF BURNING	EXPLOSIVE POWER
TO CHEMICAL IMPACT		
NOT AVAILABLE	NOT APPLICABLE	NOT AVAILABLE
SENSITIVITY TO STATIC DISCHARGE: NOT AVAILABLE		

SECTION V - REACTIVITY DATA

CHEMICAL STABILITY: NORMALLY STABLE
IF NO, UNDER WHICH CONDITIONS: HYDROCHLORIC ACID LOSES HYDROGEN CHLORIDE GAS WHEN HEATED.
INCOMPATIBILITY TO OTHER SUBSTANCES: YES
IF SO, WHICH ONES: REACTS WITH MANY INORGANIC MATERIALS. AVOID CONTACT WITH AMINES AND OXIDES, REDUCING AGENTS, OXIDIZING AGENTS.
REACTIVITY AND UNDER WHAT CONDITIONS:
HIGHLY REACTIVE WITH REDUCING AGENTS AND OXIDIZING AGENTS.
REACTS WITH SOME METALS TO GIVE OFF FLAMMABLE HYDROGEN GAS.
HAZARDOUS DECOMPOSITION PRODUCTS: HYDROGEN CHLORIDE WHEN HEATED

SECTION VI - HEALTH HAZARD DATA

ROUTE OF ENTRY:		
SKIN CONTACT: YES	SKIN ABSORPTION: YES	EYE CONTACT: YES
INHALATION: YES	INGESTION: YES	



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EFFECTS OF ACUTE EXPOSURE TO MATERIAL:
EYE CONTACT-CAUSES SEVERE IRRITATION TO THE MUCOUS MEMBRANES AND PERMANENT VISUAL DAMAGE MAY OCCUR.
SKIN CONTACT-CAUSES SEVERE BURNS; DERMATITIS AND PHOTSENSITIZATION MAY RESULT.
INHALATION-COUGHING, CHOKING. INFLAMMATION AND ULCERATION OF THE RESPIRATORY TRACT MAY OCCUR. INGESTION-CORROSION OF MUCOUS MEMBRANES, ESOPHAGUS, STOMACH, DYSPHAGIA, NAUSEA, VOMITING, INTENSE THIRST, DIARRHEA; CIRCULATORY COLLAPSE AND DEATH MAY OCCUR.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL:
EYES-REPEATED AND PROLONGED EXPOSURE TO MISTS MAY CAUSE CHRONIC EYE IRRITATION.
SKIN-REPEATED AND PROLONGED EXPOSURE TO MISTS MAY CAUSE SEVERE SKIN IRRITATION.
INHALATION-REPEATED OR PROLONGED EXPOSURE TO MISTS MAY PRODUCE RESPIRATORY TRACT IRRITATION LEADING TO BRONCHIAL INFECTIONS.

LD 50 OF MATL.	LC 50 OF MATL.	EXPOSURE LIMIT(S)	IRRITANCY OF MATL
NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	VERY CORROSIVE

SENSITIZATION OF MATERIAL	SYNERGISTIC MATERIALS
NOT AVAILABLE	NOT AVAILABLE

CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY:
NONE KNOWN

SECTION VII - PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

GLOVES: RUBBER OR NEOPRENE
RESPIRATORY: CANISTER TYPE SUITABLE FOR HCl AT IRRITATING LEVELS OF CONCENTRATION.
EYES: CHEMICAL GOGGLES AND FACE SHIELD.
FOOTWEAR: RUBBER.
CLOTHING: CHEMICAL RESISTANT. WEAR RUBBER APRON IF NEEDED.
OTHER: EYE WASH AND SAFETY SHOWER
ENGINEERING CONTROLS: ADEQUATE VENTILATION TO MAINTAIN TLV AT <5PPM

LEAK AND SPILL PROCEDURE: DO NOT ALLOW CHEMICAL TO ENTER SEWERS OR WATERWAYS. WITH LARGE SPILL, DYKE FOR LATER DISPOSAL. EVACUATE UPWIND; WEAR PROTECTIVE CLOTHING. DILUTE SPILL TO REDUCE FUMES, NEUTRALIZE. KEEP MATERIAL FROM METAL STRUCTURES.

WASTE DISPOSAL: NEUTRALIZE WITH SODA ASH, CAUSTIC SODA OR LIME AND WASH DOWN WITH EXCESS WATER. DISPOSE ACCORDING TO FEDERAL, PROVINCIAL OR LOCAL REGULATIONS. DO NOT USE AMMONIA DUE TO POTENTIAL FUMING PROBLEM.



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SECTION VIII - FIRST AID MEASURES

PROCEDURES:

EYES-HOLD EYELIDS OPEN AND WASH THOROUGHLY WITH CLEAN WATER FOR AT LEAST 15 MINUTES. GET MEDICAL HELP PROMPTLY.
SKIN-REMOVE CONTAMINATED CLOTHING IMMEDIATELY AND FLUSH WITH CLEAN WATER FOR AT LEAST 15 MINUTES. GET PROMPT MEDICAL ATTENTION.
INHALATION- REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. GIVE OXYGEN IF BREATHING IS DIFFICULT. GET IMMEDIATE MEDICAL ATTENTION.
INGESTION-GET MEDICAL HELP IMMEDIATELY. PATIENT SHOULD DRINK LARGE AMOUNTS OF WATER OR MILK. DO NOT INDUCE VOMITING.

SOURCES USED: RAW MATERIAL SUPPLIER'S MATERIAL SAFETY DATA SHEETS

ADDITIONAL INFORMATION: NONE

SECTION IX - TDG SHIPPING INFORMATION

SHIPPING NAME	CLASS	UN NO.	PG
CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (HYDROCHLORIC ACID)	8	3264	II

HANDLING PROCEDURES AND EQUIPMENT: KEEP CONTAINER CLOSED, USE WITH ADEQUATE VENTILATION. KEEP OUT OF SUN AND AWAY FROM DIRECT SOURCES OF HEAT. AVOID EYE AND SKIN CONTACT. WASH THOROUGHLY AFTER HANDLING.

STORAGE REQUIREMENTS: STORE CONTAINERS AWAY FROM METALS AND OXIDIZING AGENTS (PARTICULARLY NITRIC ACID AND CHLORATES). SAFEGUARD FROM MECHANICAL DAMAGE. KEEP OUT OF SUN AND ALL DIRECT HEAT SOURCES.

SPECIAL SHIPPING INFORMATION: HEATED; DO NOT SHIP WITH ALKALIES.

SECTION X - HMIS HAZARD RATING INFORMATION

FLAMMABILITY	REACTIVITY	HEALTH
0	1	3

SECTION XI - PREPARATION DATE OF MSDS

PREPARED BY: TECHNICAL DEPARTMENT TELEPHONE # (905) 456-9444
REVISED: NOVEMBER 22, 2003

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